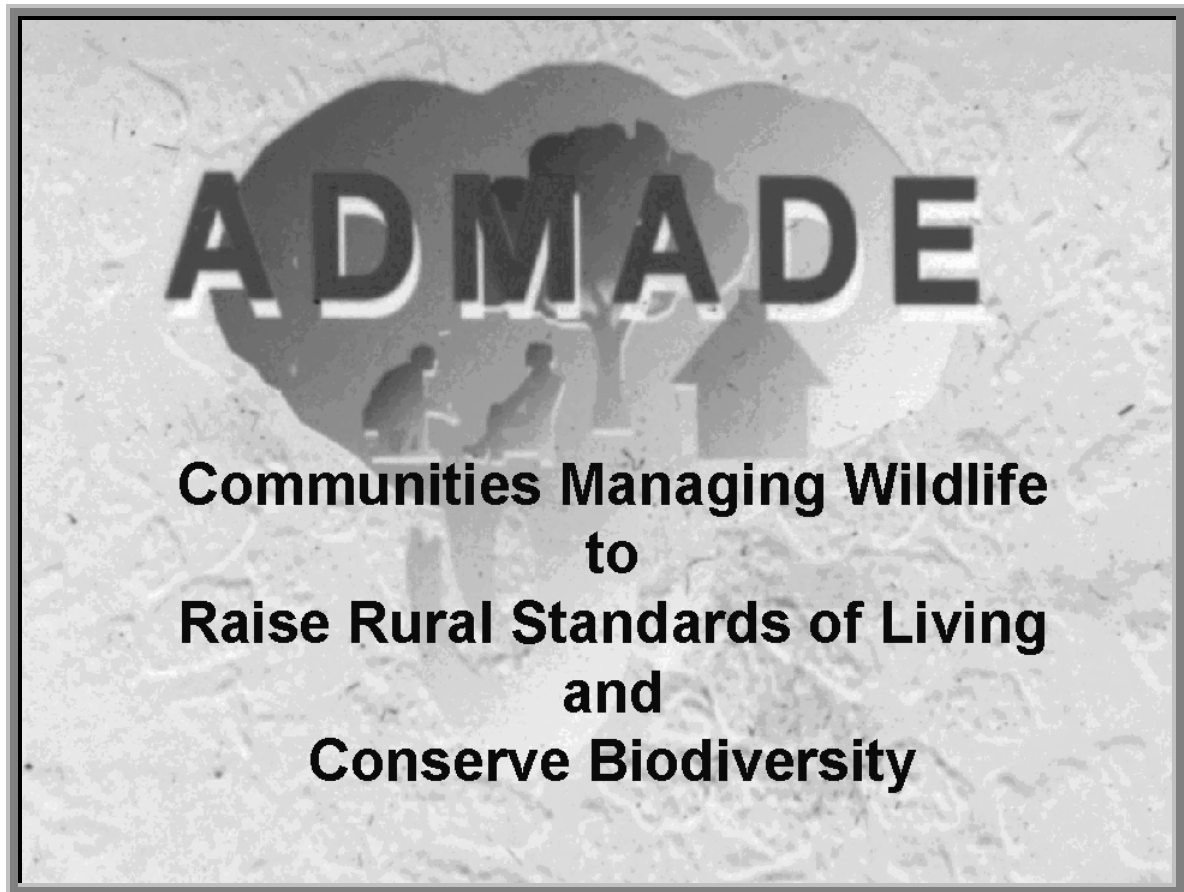


# **Annual Report for the ADMADE Sustainability Project**



**Supported by Zambia Wildlife Authority in collaboration with  
Wildlife Conservation Society of the Bronx Zoo**

*15 January 2000*

## **Introduction**

WCS implemented the ADMADE Sustainability Project under a Cooperative Agreement with USAID from 1 October 1998 through 31 December 1999. The purpose of the Project was to articulate the rich lessons learned from almost 10 years of action research and adaptive management supported under the ADMADE program. The Project was undertaken with the view that this program experience would provide an important set of lessons-learned and practical guides for implementing ADMADE as a national model for community-based natural resources management. At the time the project was conceived, the program was in the process of being totally reorganized with a completely new set of community leadership structures and legislated community responsibilities under the Zambia Wildlife Act (No. 12 of 1998). Consequently, the project became an extremely helpful exercise in not only facilitating the introduction of this new design but also analyzing and comparing ADMADE results with its previous program design. This work has led to a much clearer set of procedures needed to introduce and successfully implement ADMADE in areas where wildlife has commercial viability for benefiting local residents.

The ADMADE Sustainability Project undertook a broad range of activities designed to analyze and test the suitability of ADMADE as an effective approach for managing wildlife through community involvement. Key issues included the cost-effectiveness of the approach, roles and performance of program stakeholders, sustainable use and management of wildlife resources, and acceptability of the approach for delivering economic and social benefits to participating communities. To date, these results have been documented in a series of 10 special studies papers as well as in the presentation of quarterly progress reports. This paper provides a final review of the activities and results of the ADMADE Sustainability Project, including the results of the last quarterly reporting period.

The specific objectives of the 15-month Cooperative Agreement were:

1. Evaluate the institutional, methodological, social and economic factors that affect the performance of ADMADE as an approach to CBNRM.
2. Determine how ADMADE contributes to increased rural incomes amongst target groups.
3. Synthesize research results to develop a GMA topology, indicating where ADMADE has and may in future work best, and why, and what key constraints may be in different areas.
4. To improve understanding of ADMADE at local, national and international levels through improved dissemination activities.

## Project accomplishments

Specific research tasks that were undertaken by the project under the approved workplan are as follows:

<u>Activity</u>	<u>Documents/Status</u>
1) Analysis of GMA revenue (1998 and 1999)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , and 4 <sup>th</sup> Q-reports, Comparative Study paper, Analysis of Safari Hunting in Zambia paper, ADMADE Foundation paper

*Result: ADMADE revenues are increasing in Luangwa units whereas trends in Kafue areas show a general decline. These trends are consistent with wildlife population trends found for their respective regions in the Project study area.*

*Institutional capacity by ZAWA to monitor income earnings and to provide statement of accounts to stakeholders has been well demonstrated by the project. The Project has revealed certain weaknesses however in remitting funds in a timely and fully accountable manner. This has contributed to significant discrepancies between calculated earnings and actual transfer in some cases. These discrepancies reflect a range of problems in adopting new financial controls and management systems at the community level and in providing a fluid, transparent transfer of funds to communities.*

*The Project analyzed these problems for the purpose of stimulating constructive dialogue among the key ADMADE stakeholder to help forge improved mechanisms as possible solutions. A number of recommendations were made by the Project and a forth-coming workshop for the principal parties will be convened during the first quarter of 2000 to finalize solutions agreeable to all parties.*

*Similar problems in maintaining compliance and regulatory controls for setting and using hunting quotas were also documented from this analysis (see Appendix 1). These results have provided a strong basis for constructive dialogue with Government on ways to improve accountability of wildlife assets intended to benefit rural communities under the ADMADE policy. This dialogue culminated in a commitment by the Deputy Minister of Tourism to protect community interests by promising Government resolve to better control and regulate the issuing of special licenses. In addition, the Acting Director General of ZAWA has pledged commitment to introduce a new licensing system that will improve controls and transparency for maintaining approved quotas and providing a more direct payment to communities for animals sold from their wildlife quotas. The Project assisted ZAWA with the design of this licensing system and made substantive contributions to it, including the recommendation to have all quotas published annually as a Statutory Instrument.*

- 2) Analysis of community data to verify remittances

2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Quarterly reports, Comparative Study paper

*Result: Community skills to analyze data collected by village scouts have reached impressive levels. For example, RMC and FMC members in a number of units are now able to calculate income and the revenue shares they are owed from data on hunting returned collected by village scouts. Recognition of the importance of this information by local leaders encourages them to motivate village scouts to carry out this work accurately and efficiently. This, in turn, results in improved monitoring and management of licensed hunting and wildlife management in general. Development of these skills is also contributing to growing community pressure to maintain improved services by the Wildlife Conservation Revolving Fund (WCRF), especially when discrepancies are found and elected leaders seek clarification from WCRF.*

*An important requirement for helping ensure community bookkeepers report accurately to community constituents on ADMADE earnings and expenditures is to conduct regular external audits. The Project undertook a special study to develop an appropriate auditing procedure and provided a short course for accountants working at Chilanga and Nyamaluma to help introduce these procedures. Field visits were carried out to test the practicality of this auditing procedure. External auditing inspections have also proved helpful in improving dialogue between WCRF and community leaders for identifying problems and building trust.*

*Inspections have also demonstrated that community bookkeepers in general are not sharing financial information with their VAG committees and this is contributing to poor understanding about ADMADE and distrust among elected leaders with their community constituents. Audit inspections were made to ensure such dissemination of information is supported through the new ADMADE structure. Qualified staff now exists to maintain these inspections on a regular basis in most ADMADE areas.*

- 3) Analysis of population trends to indicate over and under utilization of wildlife resources in each GMA

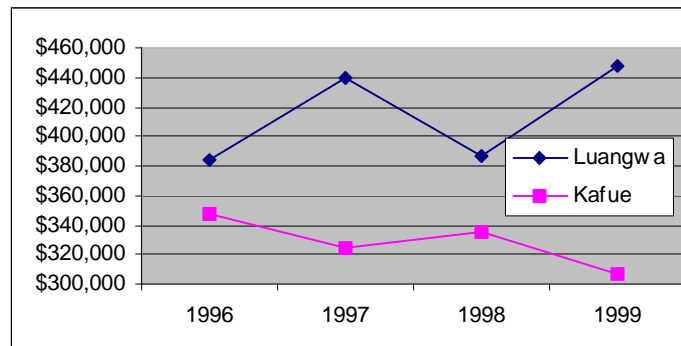
Analysis undertaken, partially presented in 4<sup>th</sup> Q-report, ADMADE Foundation Paper, Lessons-learned Paper

*Result: A low cost, community-based methodology for monitoring wildlife populations was tested and verified as a reliable way for setting hunting quotas and determining population trends. With few exceptions, populations are generally improving in the Luangwa areas. However, exceptions underline serious concerns for how over-hunting may be impacting on certain species, such as waterbuck, wildebeest and hartebeest. These concerns relate to lack of controls on hunting quotas, possible impact of trophy hunting on low-density species, and inadequate financial support to sustain effective village scout operations. The latter was related to WCRF's apparent failure to remit the full balance of income to community accounts or being unable to regulate expenditures in accordance with approved budgets. The problem was further complicated by difficulties in maintaining community-level controls on how revenues are used.*

*The Project had only limited success in trying to resolve this problem in terms of clarifying responsibility for past mistakes on remitting funds and accounting for their use, though it was able to highlight its adverse impact on wildlife management. It also prompted the Director General of ZAWA to request a Government audit to review WCRF disbursements to communities and has also led to a reorganization of accounting procedures at the community level to help make expenditures more transparent for both internal and external audits.*

*Population trends in the Kafue area as based on similar monitoring procedures used for the Luangwa Valley are generally declining. Consistent with the trends is the pattern of income earnings from the safari hunting industry (see graph below:)*

Revenue trends for ADMADE areas monitored 1996 to 1999



- 4) Level of awareness and participation among community members in 6 village area groups for 3 units in Luangwa Valley

Special Study Paper by visiting anthropologist, Lessons-learned Paper, Community Constitutions for implementing ADMADE (in both English and Nyanja translation)

*Result: ADMADE awareness has brought increased appreciation about the value of wildlife and the need to protect it from illegal use. Household understanding for how to participate in ADMADE and how to hold their elected leaders accountable for their actions has been poor. This remains an important challenge for ADMADE if the full benefit of democratic leadership on household benefits and improved resource management is to be realized. In particular, increased efforts will be needed to improve household understanding of their rights to participate in and derive benefits from ADMADE. These findings have motivated project staff to intensify efforts to improve community skills for conducting public meetings in an open and fair manner and for improving the level of community participation at these meetings. Collaboration with Peace Corps is also helping to improve leadership skills and community awareness on how to participate in ADMADE. These results also provided a critical framework for helping communities structure their community constitutions to improve local administration and accountability of ADMADE results. This was done by defining terms of reference for elected leaders and procedures for household involvement in the ADMADE process.*

- 5) A report of all community projects completed by ADMADE in the Luangwa Units      3<sup>rd</sup>, 4<sup>th</sup> and final Q-report and ADMADE Foundation Paper, Lessons-learned Paper

*Result: Prior to the new ADMADE structure, community leadership funded mostly capital projects and contributed significantly to such social services as schools, clinics, vehicle purchases and roads. Ironically, these projects were often not viewed at the household level as projects that benefited households directly. The Project facilitated the introduction of a new approach to needs assessment through VAG-level community meetings that promoted participation by all interest groups. It also made this procedure a requirement before community funds could be released.*

*Project proposals now being received are radically different from projects funded under the old ADMADE structure. To a large extent, these project proposals emphasize food security, health care, education and employment opportunities.*

*A comparison between units showed that communities which encouraged a more democratic process to project identification had lowered land use disturbances that potentially affect wildlife production. This result emphasizes the need for ADMADE to promote democratic leadership and full participatory involvement by community members if households are to refrain from such activities as snaring of wildlife or indiscriminate bush burning.*

- 6) Comparative study of GMAs to assess performance variables influencing ADMADE success      Comparative Study Paper, Lessons-learned Papers

*Result: A detailed comparative analysis was carried out to determine which performance variables have the greatest influence on ADMADE success and what management steps or actions are needed to modify these variables to increase program success. Copies of this paper were widely circulated and it is expected that the numerous lessons and guidelines generated from this research will contribute to improved ADMADE management under ZAWA.*

*What is clear is that the conservation landscape in Zambia represents an uneven topography of challenges and threats which ADMADE will have to respond to with different priorities and approaches. In the Luangwa, for example, soil fertility suitable to agriculture is limited to less than 5% and as a result food shortages are not uncommon, thus increasing the need for local communities to use illegally obtained wildlife meat to barter for food staples like maize and sorghum. ADMADE initiatives that increase food security are a key priority for this region. The Project initiated a number of such initiatives through the African College for CBNRM (Nyamaluma) and discovered that communities in general are very receptive to trying new ways to improve food security and that ADMADE will likely have a high degree of success in controlling snaring with this approach.*

*In the Northwest Province, strong cultural ties to hunting where communities have shown an historical resistance to wildlife laws have influenced the conservation landscape in this region of Zambia. Given the proximity to urban pressures for game meat in the Copperbelt, ADMADE will need to appreciate this influence of culture by adopting land uses that promote wildlife-based activities supporting individual income. Adopting a more aggressive approach to managing wildlife as a legalized cash crop may encourage public support to cooperate with management and avoid unsustainable links to the illegal urban markets. Solutions will also need to focus on increased opportunities for employing local hunters in activities that subvert their illegal practices.*

*In general, the Kafue area has greater threats from urban populations because of proximity to large growing urban centres and to road networks linked to these urban areas. As a result, external pressures by criminal wildlife use will be relatively high. If ADMADE is to succeed, this will necessitate Community Resource Boards to be well organized and well trained to motivate public support for ADMADE and to be willing to commit the level of funding necessary to ensure community-based policing is effective. It will also likely require ZAWA to provide communities with a larger financial return on the legal production of wildlife than is currently the case with 62.5% of animal license fees taxed and withheld from ADMADE communities. It will certainly require quick disbursement of funds to the Community Resource Boards and an accountable management of these funds based on well-developed wildlife management budgets.*

*Based on preliminary training results of Board members from Luangwa's ADMADE units, it is possible such skills and competencies needed to deal with these urban threats are achievable. Educational profiles of elected members of the Community Resource Boards reveal a much more qualified person than was the case with Wildlife Management Sub-authority members under the old ADMADE structure.*

*The African College for Community-based Natural Resource Management incorporated the findings of this comparative study into its training curriculum and out-reach extension services. One way it is doing this is by establishing regional training outposts to provide a more focused and adaptive set of training and facilitation services to better address the regional challenges ADMADE faces. It has also forged a collaborative outreach partnership with Peace Corps to expand community extension training through the use of third-year volunteers, who undergo initial training at the College. To a lesser extent the project achieved similar results with CARE in the Southern Province ADMADE areas.*

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| 7) Launch and updating of an ADMADE website and increased international recognition of ADMADE achievements | Undertaken |
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*Result: ADMADE website has been launched though updating its pages has proven a slow process due in part to problems of access to Zamnet. Work on the website will intensify in the year 2000 with improved communication links to better service this website, which will encourage greater dissemination of results and dialogue with interested parties who may be able to contribute technical assistance or financial support to ADMADE's on-going*

*development. In addition a microsite for ADMADE is being established by WCS at the Bronx Zoo within its own web site.*

*ADMADE has received growing recognition internationally. Examples included the selection of ADMADE by the Society of Conservation Biology as one of six of the world best conservation programs for 1999. In addition, the Biodiversity Support Program of USAID identified ADMADE as a model project for adaptive management research. At the Third Biennial CBNRM Regional Conference, ADMADE was selected as one of the three best programs representing lessons-learned for presentation at this conference. Finally, ADMADE has been requested to give a presentation at the 2000 Safari Club International Convention in recognition of its achievements in wildlife management through CBNRM approaches.*

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| 8) Assisting the African College in CBNRM with the production of four training manuals and two educational flip charts to better support to support key ADMADE activities | Undertaken and in use |
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*Result: An advanced training manual in resource management was developed and pilot tested. It covers such topics as scout data analysis, quota setting, monitoring of licensed hunting, and wildlife management planning and land use planning. A financial management manual was developed to assist the training of both community bookkeepers and Financial Management Committees. It has proven very valuable as a guide for how to audit and verify financial information and management procedures. A third manual was developed that describes procedures and guidelines for CRB elections. A fourth manual was produced for developing local capacity to facilitate community needs assessments, planning community projects and monitoring community participation in ADMADE activities. Two flip charts were also produced to allow trainers to stimulate community discussion and awareness about the 1) ADMADE structure and leadership roles and 2) family health and family planning.*

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| 9) Monthly newsletters produced                       | Undertaken |
| 10) Quarterly reports according to USAID Requirements | Undertaken |

*Result: Have demonstrated capacity of project staff to maintain a steady stream of results on USAID Strategic Objectives and has also contributed to an improved understanding of rural development in relation to natural resource conservation.*

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| 11) Distribution of research results : specific donors and NGOs, ZAWA Board members, MOT, NPWS senior staff. | ADMADE Results analysis and Comparative Study, ADMADE Results Summary for National Leaders, ADMADE Investment Proposal |
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*Result: The objective of this activity was to facilitate the integration and future support of ADMADE under the new ZAWA structure. A draft copy of the ADMADE investment proposal, for example, was presented to selected members of the ZAWA Board members and publications produced by the Project have been broadly circulated to ZAWA Board members and ZAWA staff as well as selected donors. The Project also hosted a two-hour press conference and reception on the results of the Project. This event high-lighted many of the lessons-learned and priorities for future ADMADE support. The reception was well attended by both Government officials and donors.*

12) Draft SI at Ministry of Legal Affairs

Undertaken

*Result: This work was completed and resulted in a comprehensive set of legal guidelines and procedures for the ADMADE program. The project helped to support a ZAWA/Ministry of Tourism workshop to facilitate this exercise and assisted with the drafting of the articles contained in the SI draft document. The draft has not been ratified because of the delay in ZAWA's commencement. Ratification is expected early in 2000.*

13) A four-week public awareness campaign  
to promote grassroots understanding  
of ADMADE

Undertaken

*Result: A detailed workplan was produced and work began in early December. This activity is intended to improve public understanding and appreciation for the ADMADE program and the results of the Project at both the village level (through 3 planned radio programs) and urban level (through a series of newspaper articles and TV interviews).*

14) Eleven Community Resource Boards have been  
elected and formed, eight have undergone formal  
orientation training and six have functioning  
CDCs, FMCs, and RMCs

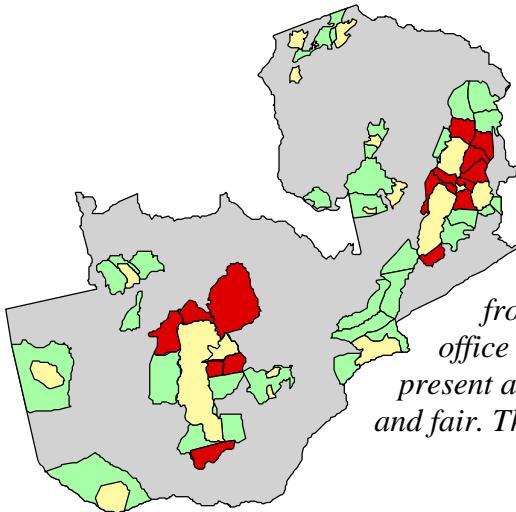
Undertaken

*Result: Though this activity demanded a far greater amount of time by project staff than was originally anticipated, it has made it possible for ADMADE to quickly transition itself*

*into the new ADMADE structure, as defined under the new Wildlife Act and the draft SI.*

*The Project facilitated elections for the following Community Resource Boards: Nabwalya, Mwanya, Chitungulu, Kazembe, Chifunda, Chikwa, Sandwe, Mumbwa, Kasonso, Lungu, and Sichifulo (see Map below, shown by the areas colored red).*

*External monitors including representatives from the District Council, regional Wardens office and the African College for CBNRM were present at these elections to ensure elections were free and fair. They also observed the process critically to*



*refine procedures for all future Board elections.*

*Several important lessons were learned from this exercise. One, local Chiefs need to be fully briefed and advised on the progress of the elections by the electoral committee to increase Chiefs' level of understanding and support for democratic leadership within his/her area. Two, independent, external monitors are required to be present throughout the election process. This increases the level of community confidence in the elections and the level of voter turn-out. Three, elections need to be preceded by at least two to three weeks of public awareness campaigns on the importance of the elections and the roles of the Community Resource Boards.*

*Among all the USAID supported areas, only Mulobezi did not conduct its elections due to internal conflicts within the traditional leadership. The Project facilitated local dialogue to overcome this problem by assisting senior ZAWA staff to visit local authorities and the problem was resolved in early December. Plans for elections in Mulobezi have been made and are scheduled for April or May 2000 when road conditions improve after the rains.*

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| 14) A total of 20 courses involving 570 participants were convened to support the above Community Resource Boards and their various responsibilities | Undertaken, Lessons-learned Paper |
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*Result: In addition to these 20 courses, an extensive number of on-site training was undertaken to observe and facilitate continued skills development in various activities, such as quota setting, land use planning, community needs assessment and public meeting facilitation. In addition, the Department of Technical Education and Vocational Training formally accredited 15 courses taught by the African College for CBNRM. Because of ADMADE's commitment to community training through an institutional process and the considerable progress achieved in promoting community-based skills in resource management, interest in the region has been expressed to make the College a regional training centre for CBNRM in Southern Africa. The ADMADE Sustainability Project provided helpful guidelines for how the College could be more cost-effective in transferring skills to communities and monitoring their success by linking itself with training outposts and depending more on outreach community training to facilitate skills development..*

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| 15) Action research is carried out to examine key leadership structures and ADMADE processes | A variety of research initiatives were undertaken to evaluate community systems for financial management, resource management and resource monitoring, and democratic leadership |
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*Result: ADMADE has a solid foundation of research results to guide its future planning and management needs. Much of this work is published in a series of "ADMADE Lessons-learned Papers" as well as in Quarterly Reports, special studies documents and internal reports produced by staff at the African College for CBNRM.*

*The project has helped improve and further develop research skills in CBNRM by ZAWA through its College and staff at ZAWA headquarters. It has contributed to an increased number of motivated and qualified Zambian professionals to do this work into the indefinite future. An extensive databases containing tabular and GIS information most of the ADMADE areas throughout the country provide one of the most comprehensive learning tools for CBNRM in the region.*

16) Baseline survey of social and economic characteristics of communities practicing ADMADE

Undertaken for Luangwa Valley  
(Base-line survey report)

*Results: Eight VAG communities representing four different Community Resource Boards were surveyed using PRA and formed questionnaire techniques to assess economic profiles of resident households. The Project also undertook a detailed demographic survey of all ADMADE areas in the project area to produce a detailed description of family size, age distribution and total population size. Comparable survey for the Kafue area was delayed because of conflicting priorities with other Project activities, namely CRB elections and training of CRB leaders. However, the Kafue area baseline survey is proceeding with funding from WCS and is scheduled to begin in January 2000.*

*Some of the key insights gained from the Luangwa survey included the following:*

- a) The Valley population is strongly skewed toward 'below 8-year olds' and is likely to grow at a high growth rate over the next couple decades.*
- b) Approximately 50% of the households interviewed experience some form of food shortage by December.*
- c) For most VAGs less than 5% use fertilizer or have access to it for producing food crops though 44% gave lack of fertilizer as the primary reason for poor yields.*
- d) When food runs out, 44% interviewed said they bartered to obtain food to feed their families. Game meat is one commodity commonly used to barter for food since the majority of households have no direct source of income.*

*The projected scenario of increased population growth for an area having limited arable land provided justification for the African College for CBNRM to introduce a community-based family health program that supports family planning services. The Project noted the important contribution this program is making by the way communities support its costs with wildlife revenues through social marketing approaches and by improved local understanding of family planning issues.*

17) Production of an 'investment proposal', addressing the role, structure and future outlook for CBNRM/ADMADE under ZAWA

Investment Proposal for the  
ADMADE program

*Result: An 18-page document, "Investment Proposal for the ADMADE Program", was produced by the Project. In this proposal a step-by-step procedure for how ADMADE is*

*carried out in a community, as based on the research results of this project, is described. The procedure is tailored to an area that is wildlife depleted but with sufficient land and available wildlife habitat for the resident community to manage and produce wildlife resources to sustain a wildlife-based industry. Estimated cost and time frame for each step is described and a survey of the relative “state” of ADMADE progress along the total time frame needed for ADMADE to be successfully implemented is presented for each game management area. Recommend funding requirements to meet the needs for each game management area are based on this survey. Funding requirements to support the necessary institutional roles by ZAWA and its College for CBNRM in providing technical and administrative leadership for the program are also presented.*

*One of the key objectives of this investment proposal was to explicitly define ways to increase the pace and chances of success by ADMADE in the Kafue and Lower Zambezi areas, where ADMADE to date has not demonstrated the level of success achieved in Luangwa Valley. The investment proposal therefore draws heavily from the lessons and results documented by the Project for possible application in other parts of Zambia’s wildlife estate. A key requirement in this regard will be to support the development of democratic leadership and management approaches to more effectively increase household-level benefits from wildlife. Achieving benefits that address food security and rural incomes will require intensive outreach training and facilitation and the use of skills and methodologies developed by the African College for CBNRM in support of ADMADE program objectives. In particular, this outreach training will need to focus on the following:*

- a. Participatory approach for community needs assessment*
- b. Financial management of community funds to support VAG-level activities and resource management budgets*
- c. Understanding and compliance with community constitutions and the Wildlife Act*
- d. Support and understanding of the new leadership structure*
- e. Increased community participation in the supervision and monitoring of village scouts*
- f. Building community and private sector partnerships*
- g. Building links with local NGOs*

## **Overview of program recommendations and progress in their implementation**

### **1. Safari hunting and licensing**

One important Project output was a document that examined the potential threats and opportunities for economic expansion of the safari industry in Zambia. Among its various recommendations was the need to design and test a new licensing system that would improve Zambia’s competitiveness in the safari industry while providing community wildlife producers the facility for a more direct revenue collection from safari clients. In close collaboration with ZAWA’s senior staff, the Project provided technical assistance

toward the development of this system, which has been approved by the Ministry of Tourism. The new system is scheduled for testing next year to help resolve past problems of making community funds fully accounted. Furthermore it offers safari clients greatly improved incentives for hunting in Zambia and will substantially improve revenue earnings for the industry. The licensing system will be pilot-tested in Luangwa Valley in 2000.

## 2. Monitoring of safari hunting for improved standards and consequences for lease extensions

ADMADE success depends on an effective partnership between rural communities who produce the resource and private sector operators who help market it. Such partnership assumes commitment to the spirit of working as partners. The Project encouraged ZAWA to reinforce industrial standards among safari operators for commitment to community partnership by awarding those companies with recognition for achieving these standards. This has been successfully done by ZAWA, which has set and awarded CBNRM standards to outstanding companies for both 1999 and 2000 and drew heavily on the monitoring capacity the Project helped to establish for ZAWA. It is noteworthy to also point out that awarding lease renewals for hunting areas was based on several factors and the relative scoring of compliance to these standards was an important consideration to these renewals.

## 3. Special licenses

The Project made strong recommendations to terminate the current way in which special licenses are issued as a necessary step to support community commitment to wildlife production and to the revenue benefits wildlife is capable of providing when licenses are sold to high-paying safari clients. These recommendations were high-lighted in the ADMADE Investment Proposal and were also emphasized during the public ADMADE reception in December 1999. The Zambian Government has demonstrated open and honest admission to the problem and has also made strong commitment to put effective controls on the issuing of special licenses in the year 2000.

## 4. ADMADE integration into ZAWA

- a) The process of formally institutionalizing ADMADE into ZAWA has only just begun and is expected to continue for at least another six months. During this period Project staff under support by WCS will continue to reinforce ZAWA staff with critical input into the design, reasserting the lessons and results of this project, and forward planning of ADMADE's activities. To assist with these activities, the Acting Director General for ZAWA has assured Project staff continued use of office space at ZAWA headquarters and that these members of staff will be regarded as seconded members of ZAWA. In addition, a well qualified Senior Warden has been appointed to work closely with Project staff in helping integrate project results into ZAWA's CBNRM program. He will also provide an important leadership role in helping apply ADMADE's procedural steps in the Kafue areas because of his departmental seniority in facilitating needed actions to strengthen the program in this area.

- b) A critical step toward integration of ADMADE into ZAWA will be the establishment and effective running of the ADMADE secretariat. Close consultations with the Director General have been made to help ensure the most critical requirements affecting ADMADE success will be included in job descriptions for Chilanga-based and Nyamaluma-based members of the Secretariat. Critical services the Secretariat should be responsible for are the following:
- 1) Ensure high standards of financial management of community revenues collected and disbursed by ZAWA, including regular reporting to CRBs on their earnings and remittances, full transparency of all transactions, and periodic auditing of community accounts.
  - 2) Facilitate co-management agreements between ZAWA and CRBs to provide support and accountability for such management needs as compliance to approved quotas, minimum standards of resource management, continued skills development, and the adoption and enforcement of land use plans.
  - 3) Increase market value of wildlife for CRB communities through more equitable and profitable arrangements for leasing land or having access to wildlife by the private sector.
  - 4) Increase supervision of ZAWA-appointed officers, especially unit leaders, serving in CRB areas to ensure their roles are supportive of CRB skills development and leadership in resource management.
  - 5) Intensify ADMADE activities and supervision in areas where the program is not well established, particularly in the Lower Zambezi and the Kafue areas.
  - 6) Improve dialogue and funding opportunities with donor agencies in their understanding and support of ADMADE.
  - 7) Assist with the analysis of ADMADE results for on-going improvements to statutory instruments and CBNRM policy and legal reform in Zambia.
  - 8) Provide technical and administrative stewardship for the ADMADE program through the Office of the Director General and the ZAWA Board.

To help support the above activities the Secretariat will need to consolidate its technical expertise and overall experiences in ADMADE, including the professional staff from WCRF and the African College for CBNRM. In addition, the Secretariat will need professional staff at ZAWA headquarters to provide dynamic leadership and future direction for ADMADE.

The Project through continued WCS support will maintain a specialist in community development to assist ZAWA with ADMADE strengthening activities in the Kafue areas. Collaborative efforts with the African College and this specialist with his support staff are contributing to the design of regional training outposts in the Kafue area, most especially at Kasempa and Mumbwa. These outposts, to be staffed by one to two well-qualified trainers and community facilitators, will be responsible for transferring skills and coordinating training methods from the College to communities living around Kafue Park on a continuous, year-round basis.

- c) The Project has also provided arguments for the creation of an ADMADE Directorate to allow a broader range of program stakeholders to contribute directly to policy formation, program review and oversight on program leadership. This proposal has been fully accepted and has been approved by the ZAWA Board. ADMADE is being increasingly recognized as a resource-based policy for rural development. In addition, other resource sectors such as forestry and fisheries have not been fully integrated into ADMADE. The creation of a Directorate will therefore include such interest groups, which will help broaden the political support for the program and its objectives. Most importantly, it will allow communities through representation from Community Resource Boards to participate directly with Government by making constructive observations to the Directorate. Such a Directorate will allow the Director General to be more responsive to the needs of ADMADE's primary stakeholders and to help build a broader constituency for it.

### **USAID strategic objectives: A review**

The Project produced Quarterly Reports that reviewed how well ADMADE activities support key USAID Strategic Objectives as defined in the original Cooperative Agreements. These results for the year are summarized in Appendix 2 and a full annotated list of document produced by the Project giving details toward achievement of these objectives are provided in Appendix 3..

### **Future plans: Emerging issues**

To help ensure the results generated by the ADMADE Sustainability Project are not forgotten, a number of emerging issues will be actively pursued by ZAWA with support from WCS and other interested collaborating partners following the closure of the Project. These include the following

#### **1) Regional Training Center, development of College for CBNRM**

Contributions by Nyamaluma (African College for CBNRM) in community training methodologies and curricula, GIS applications, and database management for CBNRM monitoring have become increasingly recognized in the region through the USAID/NRM project. Interest has been expressed by the USAID Regional Office and by USAID Global Conservation Program that it be considered as a CBNRM learning site for the region. Support from this Project has contributed to the College's capacity to service community needs in CBNRM skills to more effectively benefit from the ADMADE program. It is anticipated such recognition will continue and will assist with efforts by the College to sustain its costs in providing community support for capacity building and program monitoring and research. Some of the key areas of interest the College will intensify its efforts in 2000 include improvement in food security through appropriate technology and skills transfers, diversification of income generating opportunities for resident households, and improving local skills in democratic leadership and financial management.

## 2) Growing role for Peace Corps

The African College for CBNRM through the office of the Director General of ZAWA has collaborated closely with Peace Corps to help build a partnership of complementary efforts in promoting community skills for improved implementation of ADMADE. This partnership has grown from one volunteer in 1997 to five in 1999. Continued collaboration is helping develop a full Peace Corps project with approximately 15 volunteers in 2001. At this stage it is expected that there will be at least one Peace Corp volunteer in each of the USAID-supported GMAs, representing 12 CRBs. Their work will focus primarily on CRB leadership and VAG-level participation in benefit sharing, resource management and improved food security and household income.

## 3) Expansion of ADMADE into new areas

With continued strengthening of ADMADE as based on initial lessons and successes from the Luangwa units, it is anticipated that public confidence in ADMADE will also grow. This obviously depends on a number of assumptions, not least of which is Government commitment to rewarding communities a fair market value for the wildlife resources they produce. If ADMADE is able to demonstrate success in the Kafue areas over the coming year, there will undoubtedly be greater interest in its application in other areas as well as increased need for investments in its introduction to these areas. Such a scenario will require trained personnel to assist in ADMADE's expansion and current efforts by professional staff at Chilanga and at the African College for CBNRM. Members of the Project in consultation with the Director General will continue to seek funding for this support.

## 4) Focused research

- a) Six study sites were identified and visited by Elyssa Manspeizer, Ph.D. student in Anthropology, for monitoring community response to the leadership of CRBs and VAG Chairpersons as part of a joint research project with the African College for CBNRM. Data were largely perceptual to evaluate how freely people participate under the new ADMADE structure and how well households influence decisions that affect the way ADMADE can benefit their livelihood. Ms. Manspeizer will revisit these sites in March with support from the College to compare with earlier results to gauge how well the new structure is contributing to a more democratic process in decision-making and benefit-sharing.
- b) The College has facilitated community-based land use plans for six Community Resource Boards in the Luangwa Valley through their respective VAG committees and Resource Management Committees. Developing these plans and monitoring community support of them provide an important research opportunity to better understand and appreciate the level of responsibility communities can attain under ADMADE for the management of their natural resources. The College will continue to

monitor how communities enforce these plans and further develop them as part of their overall commitment to ADMADE.

- c) The College has established a credible and sophisticated capacity to manage and disseminate data collected from on-going resource use monitoring by village scouts. The Project provided ZAWA with the important opportunity to analyze these data for a number of important applications to wildlife management, namely quota setting, population trend analysis, law enforcement results, management performance, and staff training needs. The College refers to the analysis of these data as “management research” and through its on-going analysis of these data it has contributed useful insights on ways community-based management can be improved under the ADMADE policy. Continued management research with this database will be a priority by the College in the coming year as ZAWA defines its relationship with communities practicing ADMADE throughout the country’s game management areas.

## Appendix 1. Analysis of special licenses

The Project obtained special license records for Mumbwa, Chikwa, Chidunda, Lumimba and Munyamadzi GMAs. Of these five GMAs, three were affected by special licenses. No special licenses were recorded in Chikwa or Chidunda and in Lower Lumimba, most of the special licenses were hunted in the Mwanya hunting block. The results below strongly suggest the licenses issued were carried out without regard to sustainability of animal populations or revenue rights for the local community producers of the resource. In Mumbwa GMA, for example, a total of 35 licenses were issued with a total of 301 animals on these licenses. Approximately 30% of these animals were harvested at a commercial value of \$62,900 in license fees lost to the local community. The revenue lost to the community is considerably more if these animals had been hunted by safari clients who would have paid concessions fees directly to the community. Furthermore, eight buffalo were hunted on special licenses in Mumbwa where population size is low and hunting quotas for this species have been below ten for the past several years. The large number of hartebeest and sable harvested on special licenses is another example of unsustainable harvesting of wildlife species of great economic importance to the local community being asked to conserve wildlife under the ADMARE program.

Mumbwa GMA

Species	Number shot	License fee	Total value
Buffalo	8	\$1,000	\$8,000
Hartebeest	31	\$600	\$18,600
Reedbuck	16	\$300	\$4,800
Kudu	2	\$1,000	\$2,000
Sable	10	\$2,000	\$20,000
Warthog	12	\$300	\$3,600
Puku	6	\$300	\$1,800
Bushbuck	3	\$300	\$900
Hippo	1	\$1,000	\$1,000
Impala	18	\$100	\$1,800
C. Duiker	2	\$200	\$400
	<b>109</b>		<b>\$62,900</b>

Mwanya Block, Lower Lumimba GMA

Species	Number shot	License fee	Total value
Buffalo	11	\$1,000	\$11,000
Puku	6	\$300	\$1,800
Bushbuck	5	\$300	\$1,500
Waterbuck	2	\$600	\$1,200
Kudu	4	\$1,000	\$4,000
Impala	6	\$100	\$600
	<b>34</b>		<b>\$20,100</b>

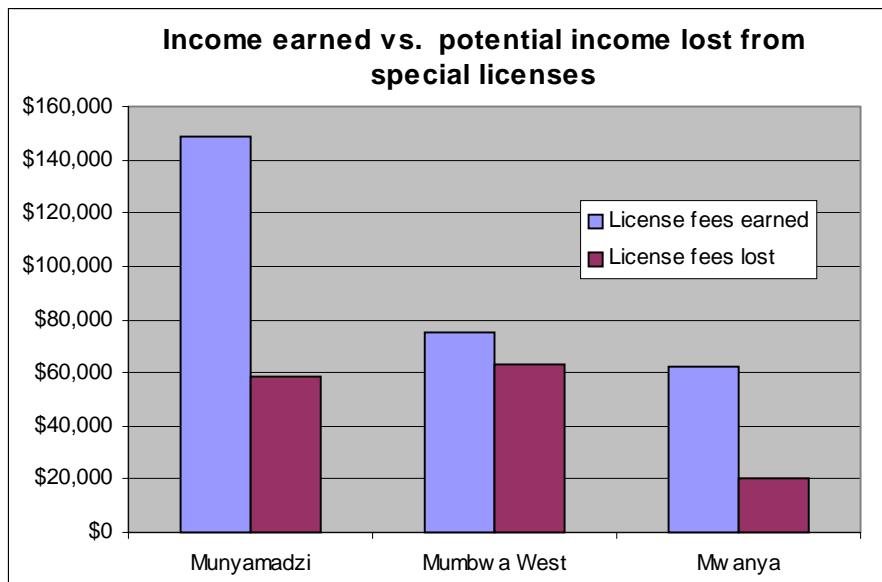
Munyamadzi GMA

Species	Number shot	License fee	Total value
Buffalo	26	\$1,000	\$26,000
Wildebeest	9	\$600	\$5,400
Puku	7	\$300	\$2,100
Eland	7	\$1,100	\$7,700
Bushbuck	8	\$300	\$2,400
Waterbuck	1	\$600	\$600
Kudu	10	\$1,000	\$10,000
Impala	15	\$100	\$1,500
Warthog	5	\$300	\$1,500
Zebra	2	\$600	\$1,200
	<b>90</b>		<b>\$58,400</b>

In all three cases there are cases where species of economic importance to the local community and to the marketability of the area as a safari hunting area were over-hunted. In Mwanya, waterbuck has been a declining species and has been kept either off the quota or with only one on quota for the past two years. Two were taken on special license in 1999. The same area has not produced good quality kudu trophy bulls and has been difficult to hunt in recent years. Again, the area was being managed with relatively low kudu on quota to allow the population to rebuild its numbers. Four were hunted on special license in 1999. In Munyamadzi, eland were not on quota and yet seven were hunted on special license. The

population had been removed from quota for several years so that the species could be reintroduced on the quota for safari hunting. This will not be possible now and potential revenue for both the community and the private sector has been sacrificed for non-paying hunters to harvest these species on special license. The twenty-six buffalo hunted on special license cannot be sustained in Munyamadzi together with the quotas needed for its two hunting blocks, which totaled 46 for 1999.

Actual vs. potential income	Munyamadzi	Mumbwa West	Mwanya
License fees earned	\$149,050	\$74,900	\$62,475
License fees lost	\$58,400	\$62,900	\$20,100
Percent of income earned	39.2%	84.0%	32.2%



The table and graph to the left show the seriousness of special licenses in terms of lost revenues. In Mumbwa, animals hunted on special licenses equaled 84% of the total license fees collected for the single hunting block opened to safari clients in 1999. In Munyamadzi and Mwanya, the figures were 39.2% and 22.2%, respectively.

Continued hunting with special licenses at present levels will most definitely erode revenue levels currently derived from safari hunting, due largely to declining populations from the effects of over-hunting. None of the animals that were hunted on these special licenses were on quota and in theory represented a potential problem of over-hunting.

#### Recommendations:

- 1) High economic species should be hunted at commercial rates when provided on special licenses
- 2) All animals hunted legally in Zambia, including those on special license, should by law be on quotas approved by Community Resource Boards and ZAWA authorities.
- 3) A moratorium should be imposed on special licenses for those species where their populations are known to be declining or where Community Resource Boards have sufficient evidence to support a no-hunting policy as a management measure to improve their wildlife industry.

## Appendix II. Summary of ADMADE Performance consistent with USAID Strategic Objectives

The project was directly responsible for the creation and establishment of eleven Community Resource Boards (CRBs) and 53 Village Area Groups (VAGs) in the project area. The latter function as Rural Non-farm Enterprise (RNFE) groups because under the new ADMADE structure CRBs distribute funds for community benefits directly to VAG accounts. The VAGs may then reinvest these funds to market or distribute agricultural inputs, finance some other income generating activities, or support the costs of a social service facility. In a number of VAGs the ADMADE Sustainability Project through the College at Nyamaluma succeeded in transferring appropriate skills to increase the economic value of their wildlife for improving family-level income. Given that rural poverty and food shortages represent two primary threats to wildlife production in Zambia's game management areas, initiation of this work and demonstration of its results was considered a high priority of the ADMADE Sustainability Project.

One of the major constraints in undertaking this work, however, was the need to first establish a well structured community organization based on democratically elected leadership for each of the twelve ADMADE areas in the project area. For these community organizations to assume responsibility for their funds, they also required sufficient technical capacity to plan how these funds would be used with full household involvement in the decision-making process. The Project had effectively 12 months to undertake these tasks and observe how well these community structures increased rural income for VAG members. Despite the short duration of the project, impressive results were achieved and are summarized below.

### IR 1.1 Increased Sustainable Agriculture and Natural Resource Production

#### a. Land and labor productivity

The data presented below pertains to those units in Luangwa Valley where statement of accounts for actual expenditures in the field were available and sufficiently reliable to use for this analysis. An assumption of this analysis is that expenditures for a given year's management costs will contribute more to wildlife production and therefore income earnings the following year.

Results show that money reinvested by the local ADMADE leadership equaled to only 65.4% of the amount that was available and totaled ZMK 192,568,000. The GMA Comparative Study argued for various reasons that this amount is insufficient to support wildlife management needs in a typical GMA. From expenditures recorded in the units, \$733 was spent on average for fixed costs per month, which included village scout salaries, and \$1722 for variable costs, most of which was used to support vehicle running costs and over-night allowances. The study argued that this level of expenditure was inadequate to support village scout incentives and field operations for improved management performance. The roughly 35% of the total amount available for these costs not used could not be adequately explained by this study. Documenting this discrepancy, however, has

provoked a constructive dialogue among ADMADE parties to convene a workshop in 2000 to review procedures for how community revenues are allocated to management costs.

Despite these inconsistencies and possible short-comings, total income earnings accruing to WCRF increased by 15.6%.

Luangwa areas	Management costs (1998)		WCRF Annual earnings	
Unit	Expended	Available	1998	1999
Mwanya	ZMK 37,018,000	ZMK 52,749,000	\$58,825	\$71,638
Chanjuzi	ZMK 51,748,000	ZMK 55,380,000	\$60,625	\$55,975
Chikwa	ZMK 16,314,000	ZMK 41,457,000	\$51,600	\$67,600
Chifunda	ZMK 40,210,000	ZMK 39,479,000	\$51,400	\$55,250
Munyamadzi	ZMK 47,278,000	ZMK 105,229,000	\$164,410	\$196,875
Total	ZMK 192,568,000	ZMK 294,294,000	\$386,860	\$447,338
Percent used	65.4%		Increase	15.6%

Kafue areas	WCRF Annual earnings	
Unit	1998	1999
Kasonso	\$63,800	\$21,300
Lunga-Busanga	\$28,350	\$24,300
Lunga-Lushwishi	\$58,600	\$46,225
Mulobezi	\$70,925	\$82,850
Mumbwa West	\$60,850	\$80,830
Sichifulo	\$52,335	\$51,400
Total	\$336,858	\$308,904
Per cent increase	-8.3%	

Comparable increase in revenue for ADMADE areas in the Kafue area was not observed, and to the contrary, revenues declined by 8.3%. Explaining this difference statistically is not possible given the large number of unmeasured variables that could have accounted for this change. It is doubtful that

absolute amounts expended for management costs the previous year in 1998 was the sole factor, especially given the rather inefficient and incomplete use of funds observed for the Valley areas. Other variables that seemed more plausible included the following:

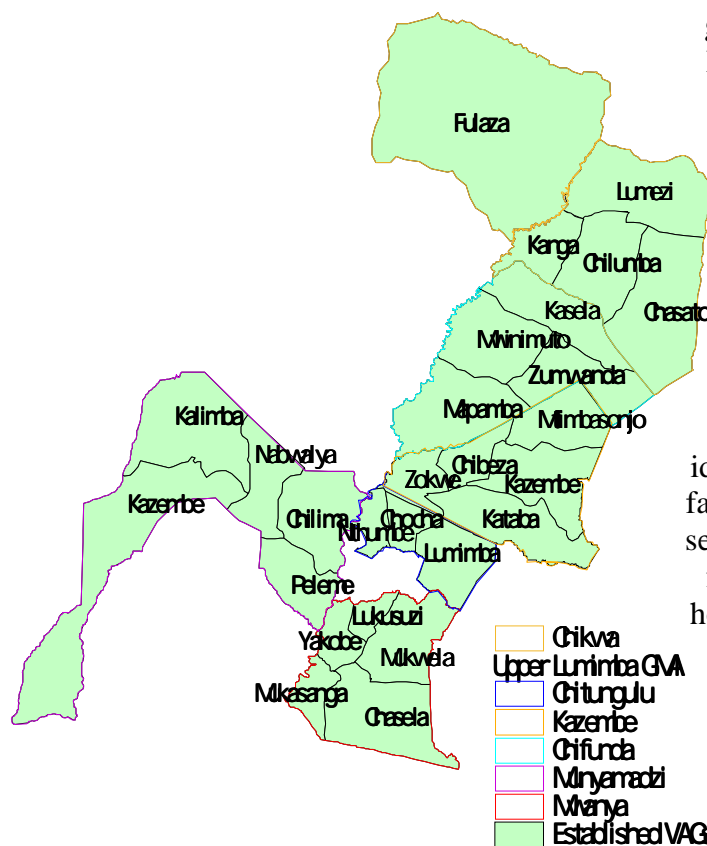
- 1) Luangwa Units had more training in community-based natural resource management skills
- 2) Community organization was more advanced for Luangwa Units as a result of this training
- 3) Commercial poaching pressures were less in Luangwa areas.

Aside from revenues used for management costs that are paid as salaries or for services provided, household benefits from ADMADE are financed from the share apportioned to community projects. This amount is calculated from two different fees paid by safari clients who harvest trophy animals within an ADMADE area. The first is animal license fees, from which Government imposes a 50% taxation. From the remaining amount, 35% goes toward household level benefits in the community, and the balance goes toward wildlife management costs (40%) and the WCRF (25%). The second fee is the concession fee and while none is transferred to Government, 25% is retained by WCRF and 35% is allocated to household benefits.

For the 6 CRBs in the Luangwa Valley, comprising a total of 27 VAGs, total community revenues equaled \$283,327 or \$22.69 per household. Total area for these 6 CRBs is 13,777 and total number of households estimated to be living on this area is 8640 (see Baseline Survey of ADMADE Units in Luangwa Valley). In the Special Studies paper, Future Direction for the Safari Hunting Industry in Zambia, a number of constraints and opportunities were discussed that could greatly influence household shares from the safari hunting industry. Furthermore, if the high level of taxation currently imposed on community wildlife producers were reduced to levels more typical of the commercial sector (18%), household shares would be approximately \$35 per household at current revenue levels. Despite the fact that household shares are low in relation to household needs, they are substantially higher than reported in Science (Jan, 2000) for CAMPFIRE, which reported about a \$2/household revenue share.

#### b) Number of selected groups adopting improved technologies

The Project successfully established 27 VAGs in the Luangwa Valley (see Figure below) and 25 in the Kafue GMAs. Only in Luangwa Valley were VAGs established early enough

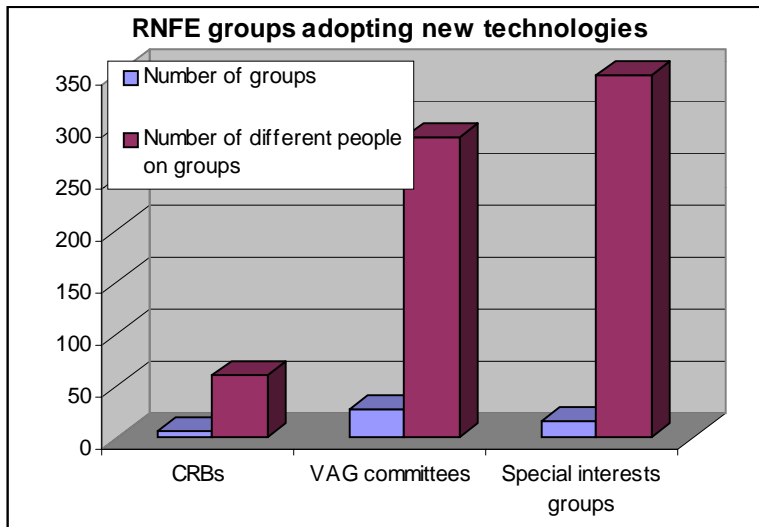


to provide skills training to these groups. With support from the Project, the African College for Community-based Natural Resource Management (The College) at Nyamaluma conducted a total of 20 courses during 1999 involving 570 participants with over 80% were from the Luangwa Area. The courses provided mostly VAG-level skills in community needs assessment for community project identification, public meeting facilitation, land use planning, quota setting, food security and improved farming methods, bee-keeping and honey marketing, and managing community accounts.

As a result of this training and continued outreach services supported by the Project through the College, considerable progress

was achieved during the year in organizing these communities into various enterprise groups. Dramatic increases in levels of household participation as compared with the previous ADMADE leadership structure was observed in all of the units. Contributing to this work were 5 Peace Corps volunteers who worked in collaboration with the College.

Household participation in ADMADE through active membership on these various groups has greatly improved with the formation of Community Resource Boards and through the various committees and special interest groups supported by the Boards. One factor contributing to this has been the greater freedom to convene meetings without the need for the local Chief to be present or to have his permission for such meetings. Another factor in the improved access to training programs offered by the College. There has also been an improved quality of community leaders participating in these groups with the introduction of a democratic process for selecting people on the merit of their capacity to lead.



The figure to the left provides a summary of membership levels to these groups for the Luangwa Units. VAG committees are directly responsible for facilitating community meetings to debate, plan and implement projects agreed upon at these public meetings. Committee members from each of the VAGs are also chosen to serve on various technical committees (resource management, financial

management and community development). In essence, all of these groups add value to the wildlife resource being produced by promoting increased opportunities for household benefits in their respective VAGs.

An important illustration that household benefits are being discussed and recognized at the VAG level has been the rapid growth of special interest groups. The number provided in the above figure is considered to be a underestimate because not all the units were included in this category when this summary was prepared. These groups include four different women groups involved with small business and food security. Two operate a yenga press, one has established a garden for selling leafy vegetables and tomatoes, and one has received a loan to operate and manage a grocery. In addition, four bee-keeping groups have been established and each have begun construction and setting bee-hives for both revenue and food security purposes. (In Mumbwa, the College helped establish six bee-keeping groups and over 300 bottles were produced and marketed in Lusaka at K4000/bottle). A number of VAGs have begun to establish food security groups or farmers groups to access loans or assistance to improve food production in their area. In Chikwa, a reformed 'Poacher Club' has been established and is appealing to their VAG for ways its members can become better farmers.

I.R. 1.2 Increased contribution to rural non-farm enterprises to private sector growth

a) RNFE sales and service revenue

*Among the Luangwa Units in 1999, Mwanya and Munyamadzi were among the best examples for how CRBs have increased access to credit and finance for local community enterprises, though most all units have now begun to engage in these efforts through their newly formed leadership structures. The following provides a summary of these achievements.*

1. **Mwanya (Lower Lumimba)**. Each of its 5 VAGs distributed 120x90kg bags of maize to local households in need of food either through sales or through food for work. In some cases, elderly or the sick, food was given as humanitarian assistance. A local food security committee, whose members were chosen on the basis of honesty and integrity, decided upon such exceptions. In two VAGs the 'food for work' approach was used to clear and plant two large community gardens as conservation farming plots and each are expected to produce over 200 x 90kg bags of maize during the current season. These local enterprises were undertaken as an indirect but very important way to earn more revenue from wildlife by reducing wildlife snaring through improved food security. Three out of 5 VAGs now have functioning grinding mills and are operated as VAG-operated enterprises with revenues accruing to the their respective accounts. The remaining two VAGs are in the process of purchasing and installing their own grinding mills. With one exception, these are the only grinding mills in the community. It is believed they will contribute significantly to more time women will have to produce maize and care for children. Another VAG used its revenue share to build a clinic outpost and the house for the clinic technician, who will be a local resident trained for administering primary care and family health. This was project was completed in 1999 and will be fully functional in 2000. Two other VAGs are supporting the services of family health providers by social marketing of various family health products. Such health care initiatives are indirectly improving household output in agriculture labor and reducing the costs of seeking medical help from more distant places. Finally, another VAG partially supports the maintenance of solar electrification of an area where households have relocated their granaries to avoid food loss from elephants. Additional support has been provided to increase the value of this enclosed area to a woman's club for the production of vegetables. Members of the club have constructed a well within the perimeter of the fencing to increase the acreage of the vegetable gardening. Fruit trees have also been added and will be protected by the electric fencing. Such an investment has reduced potential conflicts with wildlife and is likely to improve local attitudes toward living with wildlife as a liability. Tabulation of these commodities and services are provided below:

Description of assistance	Value	Beneficiaries (households)	# VAGS effected	Added value (approx.)			Total
				Sales	Wildlife revenue	Labor (*)	
1) 600 x 90kg bags of maize	\$12,500	1680	5	\$4,500	\$20,000	\$2,000	\$26,500
2) 3 grinding mills	\$15,000	1008	3	\$3,000		\$6,000	\$9,000
3) electric fencing/granary protection, VAG garden	\$1,500	30	1	\$150 (**)		\$1,000	\$1,150
4) Community garden	\$400	700	2	\$2,400 (**)			\$2,400
5) Health outpost	\$8,000	450	1			\$2,000	\$2,000
<b>Totals:</b>				<b>\$37,400</b>			<b>\$41,050</b>

\* Added value for labor includes labor saved that contributes to increased output or labor added from exchange of commodity for free labor

\*\* Wildlife revenue added from these categories duplicate or include the value added from category #1

*Two bee-keeping groups were formed in Mwanya and with the technical assistance of College training staff at least 15 bar hives were made locally toward the end of the year. It is too early to evaluate the performance of these groups but in theory they will improve food security with a more regular supply of honey and it is hoped this activity will expand to reduce habitat disturbances (e.g. bushfires) that might impact negatively on wildlife revenues.*

- 2) Munyamadzi. This unit established its new ADMADE structure in late August and had not made as much progress in VAG-level investments as Mwanya but has an impressive history of contributing a significant amount of its wildlife income to local employment in a range of community and private sector services. These employment levels continued into 1999 and reflect the same level as was spent in 1998 and are summarized in the table below.

Analysis of annual household economic benefits from ADMADE for Munyamadzi Unit		
Job category	No. households	Total annual salary
<b>1) From 40% wildlife management account</b>		
Senior village scout	3	ZMK 2,340,000
Regular village scout	23	ZMK 16,800,000
Assistant village scout	6	ZMK 3,792,000
Drivers	2	ZMK 1,740,000
Bookkeeper	1	ZMK 1,044,000
Community Development officer	1	ZMK 1,044,000
		<b>ZMK 26,760,000</b>
<b>2) From 35% community development account</b>		
Project supervisor	1	ZMK 780,000
Storeman	1	ZMK 540,000
Permanent workers	16	ZMK 6,720,000
Typist	1	ZMK 600,000
Community store salesperson	1	ZMK 480,000
Community teachers	13	ZMK 6,900,000
Air strip cleaners	10	ZMK 7,200,000
Contract workers:		
Pit sawers	5	ZMK 370,000
Brick molders	60	ZMK 3,060,000
Sand diggers	4	ZMK 90,000
Road clearers	45	ZMK 1,350,000
Stone crushers	13	ZMK 900,000
Bricklayers	8	ZMK 920,000

		<b>ZMK 29,910,000</b>
<b>3) Residents employed by Nyampala safaris</b>		
Permanent workers (6 months)	14	ZMK 2,970,000
General workers	40	ZMK 1,200,000
		<b>ZMK 4,170,000</b>
<b>4) Residents employed by Luawata safaris</b>		
Permanent workers (6 months)	16	ZMK 16,020,000
General workers	5	ZMK 6,000,000
		<b>ZMK 22,020,000</b>
<b>5) ADMADE allowances</b>		
CRB members	10	ZMK 2,000,000
VAG members	40	ZMK 1,600,000
		<b>ZMK 3,600,000</b>
Total households receiving income	339	<b>ZMK 86,460,000</b>
Total households in the GMA (approx)	1633 (or 21%)	

While percentage of total households that are beneficiaries to this employment is relatively low, 21%, it is considerably higher than other units in the Valley and for this reason provides a useful model for possible benefits local employment may have as an added value to increasing wildlife income. Income in Munyamadzi has increased appreciably from 1998 to 1999, rising from \$164,000 to \$198,000. These figures represent total income accrued to WCRF after the 50% deduction for Government shares. The amount of money invested in local employment from community sources equaled approximately \$23,600 1999, which included village scout salaries. Total revenue, however, increased substantially by \$34,000.

It is argued that Munyamadzi's effort to increase local employment for various jobs that support ADMADE activities has helped to increase local awareness about the potential economic benefits of living with wildlife. Compounded with continued skills training of its elected leadership to the various committees in the unit, Munyamadzi's has achieved one of the lowest levels of resource disturbances as judged by safari client questionnaires. It has also achieved the lowest level of poaching in the Luangwa areas as judged by professional hunters and by population trend analyses carried out by the ADMADE Sustainability Project (Alternative approaches to estimating wildlife population trends: a test of community-based management, An ADMADE Lesson's Learned Paper). These results tell the important story that if community leadership invest their wealth properly in sufficient number of job opportunities for local residents, wildlife income for the entire community through VAG-level group benefits will improve as will wildlife numbers.

#### b) Improved RNFE access to finance

The ADMADE Sustainability Project through staff support from the College and members of ZAWA facilitated community decisions on how Community Resource Boards will be mandated by locally adopted constitutions to allocate revenues for RNFE finance. This was successfully achieved for the units in the Luangwa Valley and the same model will be adopted for the units in the Kafue area. Ultimately these decisions should be reflected or acknowledged in the Statutory Instruments that define procedures for implementing

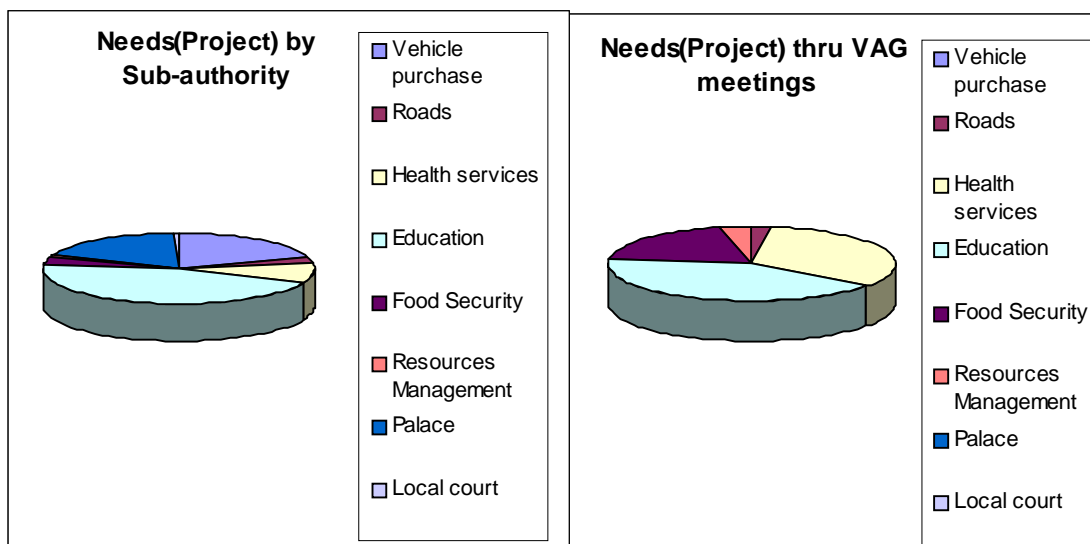
ADMADE. The local policy, as defined in these community constitutions, requires that 70% of all funds allocated for community benefits be shared among the VAG groups. Of the remaining, 5% is given to the local Chief or Patron of the CRB and 25% is used to support all administrative costs of elected leaders implementing ADMADE in the area. During the latter half of 1999, project staff visited units repeatedly to verify financial systems and controls previously agreed to were carried out in accordance to their constitution's terms of reference. This work was done in collaboration with WCRF and the following procedures for remitting funds to CRB accounts were agreed to based on external audit inspections:

- 1) If the CRB through its Community Bookkeeper does not demonstrate a valid set of account books showing that separate VAG ledger accounts are being maintained, funds will not be remitted.
- 2) If VAG leadership does not support an open, participatory approach to identifying projects that address household-level needs, then funds will not be remitted.
- 3) If any fraudulent use of funds are found or if expenditures are not consistent with VAG-approved budgets for the 65% share, then funds will not be remitted.

In response to any of the above reasons for not remitting funds, the CRB will have to demonstrate appropriate measures were taken to correct the problem and such measures will need to be verified by an external inspector.

The Mwanya example as described in the table above illustrates the level of finance/credit access VAG groups are now able to receive, which was not the case during the previous ADMADE structure under the Wildlife Management Authority and Chaired by the Local Chief. In all Units in the Valley, VAG budgets have been conducted using a PRA approach to make the process as inclusive as possible for all special interest groups.

Evidence that this PRA approach, now more easily achieved under the new ADMADE structure, is resulting in a set of community development investments different from the previous approach and more supportive of household needs is illustrated below:



The above diagram shows percentage allocation of finance to types of community projects in broad-type classifications. Food security for example include food relief, agricultural inputs and grinding mills. Two major expenditures supported by Wildlife Management Authorities prior to the new ADMADE structure were construction of Chief palaces and purchase of vehicles. Under the new procedure for identifying uses of finance and credit, these two categories were not supported and what became more important were food security, health services, and road improvement. Education remained a high priority but this was due largely to the fact that projects previously started were not completed and VAG leadership decided to finish these before initiating new ones.

This reorientation of development priorities is due largely to having access to finance and credit at the VAG level and having external controls that require a participatory process to project identification by all VAG members in the area. Some of the specific projects that promote commercial development adopted and funded included grinding mill purchases (4), social marketing of family health products (5 units), credit for a women-group owned store, and credit for inputs for bee-keeping groups (3 units). In one of the units (Mumbwa), where bee-keeping was given credit to establish a honey making business, over 300 bottles were sold on its first harvest and the credit has been paid back entirely.

c) Number of clients/members of institutions that support RNFE members

1. With financial assistance from the ADMADE Sustainability Project, The African College of Community-based Natural Resource Management at Nyamaluma was able to conduct 20 different courses during 1999. Most of these courses are described in previous quarterly reports. A total of 570 students, all of whom were community residents from game management areas covered under this project, participated in this training. The College provides regular visitations to the units by technical staff to provide additional on-site outreach training to help improve those skills introduced through more formal training sessions. To expand the College's skills base for transferring appropriate technology, the College frequently collaborates with other NGO partners to adapt a particular technology or set of skills to the ADMADE environment. This has been demonstrated with introduction of drip irrigation gardening skills with assistance from World Vision and introduction of conservation farming by consultation with CLUSA. More recent collaboration with SIDA is improving staff skills in PRA techniques.
2. Peace Corps has increased its level of involvement as an outreach agent and collaborates closely with the College to help reinforce many of the skills introduced by the College and to concentrate on priorities as identified through the monitoring efforts of the College. This partnership has proven very useful in having independent people living in ADMADE communities to help assess progress in adoption and use of skills and identification of training needs and ways to best meet these needs. Discussions are now being held to grow the ADMADE/Peace Corp commitment to 30 volunteers over the next two years.
3. Lutherwan World Federation (LWF) frequently undertakes joint projects with certain ADMADE areas in the Luangwa Valley, most especially Upper Lumimba. In this area LWF has introduced a number of food security initiative through the ADMADE

program and where funding for matching support is required, community funds through ADMADE are normally used.

4. CARE has demonstrated a growing interest to harmonize their outreach activities through the ADMADE structure in the Southern Province and provided their own staff to join ADMADE Sustainability Project staff in conducting elections and formalizing Community Resource Boards in Sichifulo area.
5. SABLES, a non-profit organization in the world, donated 3 tons of books to ADMADE areas where schools were built with revenue generated from wildlife. Unfortunately the books were incorrectly consigned to Zimbabwe and the donation never reached Zambia. SABLES has acquired a new consignment of books for Zambia and is awaiting for additional funding to allow these books to be shipped again to Africa.

### IR 1.3 Improved trade as an investment in the environment

The tables below provide between year changes in revenues from safari hunting for each of the hunting blocks contained within the game management areas reviewed by the ADMADE Sustainability Project. Luangwa blocks showed stronger growth than those in the Kafue area, though variation was high within both areas. There were many variables that could have contributed to this variation not directly related to ADMADE performance at the community level, including both private sector and Government variables. For example, Chifunda undersold its area in 1998 by selling only six classical clients, Chikwa operator has not maintained a resident professional hunter for more than a year, and Luawata operator cancelled hunts in the same year when Government issued non-resident licenses to that block. Special licenses are generally a more severe problem for the Kafue areas because of proximity to urban areas where holders of these licenses often reside and this may be a serious factor to the decline of revenues in the Kafue areas.

Luangwa Hunting Blocks							
Year	Chanjuzi	Chifunda	Chikwa	Luawata	Mwanya	Nyampala	Totals
1996-97	-17.5%	23.5%	267.5%	18.0%	-26.9%	-3.6%	14.6%
1997-98	1.7%	-36.2%	-39.5%	-1.0%	8.5%	6.7%	-12.1%
1998-99	-7.7%	7.5%	32.5%	24.4%	21.8%	13.7%	15.8%
Average	-7.8%	-1.7%	86.9%	13.8%	1.1%	5.6%	6.1%

Kafue Area Hunting Blocks							
Year	Kasonso	Lunga-Busanga	Lunga-Luswishi	Mulobezi	Mumbwa West	Sichifulo	Totals
1996-97	-46.7%	-27.9%	444.4%	-4.0%	-29.2%	14.9%	-6.5%
1997-98	88.9%	-2.5%	35.9%	-7.4%	2.1%	-36.4%	3.2%
1998-99	-66.6%	-14.3%	-21.1%	16.8%	32.8%	-1.8%	-8.3%
Average	-8.1%	-14.9%	153.1%	1.8%	1.9%	-7.7%	-3.9%

Ecotourism remains poorly developed in most all ADMADE areas. This form of wildlife-based industry has up until present not been a major source of community revenues since most all non-hunting tourism concessions operate without clear contractual obligations to the community in paying fees collected by the community. With the establishment of Community Resource Boards and the improved set of skills local leaders are receiving from current training programs, opportunities to develop this sector with joint-management

arrangements with the community will be an important opportunity to improve ADMADE's revenue growth.

An important precursor to this growth in private sector investment and participation as a partner with local communities is the capacity of local leadership to develop and implement land use plans that make such investments attractive. CRBs through their Resource Management Committees and VAG committees received intensive training in developing such plans. This training was designed to shift the responsibility of planning and enforcement of these plans to the VAG level and extra economic incentives for outstanding achievement in these efforts is contained in the ADMADE community constitutions. By the end of 1999, each of the ADMADE units in the Luangwa Valley had completed the drafting of their first land use plans. This was facilitated by members of staff from the College with funding support provided by the Project.

Previous quarterly reports highlighted a number of important achievements the Luangwa communities have achieved in implementing these plans, which are helping communities organize their priorities in dealing with resource use conflicts and creating future opportunities for more diverse sources of revenue from ecotourism. Through these community efforts it is becoming increasingly evident that local leaders are gaining confidence and knowledge in managing their resources as an economic resource. For example, in Mwanya, Munyamadzi and Chikwa community leadership through the relevant VAGs significantly reduced disturbances caused by local fishermen to safari clients and a new licensing system for commercial fishermen was approved by the District Council that provides authorization to the CRBs for approval of licenses. In three units, Mwanya, Chanjuzi and Chikwa new village scout camps were established in areas where illegal hunting has been a problem. In all six units, local leadership has accepted the responsibility to invest in various measures to help overcome hunger in their area as a way of controlling the use of wire snares to obtain game meat to exchange for maize. Continued demonstration of land use planning skills and enforcement of these plans will likely be an important determinant to levels of investment and willingness by private sector parties to negotiate directly with local communities as responsible business partners.

### Appendix III. Bibliography of Papers Produced by the ADMADE Sustainability Project

1. Quarterly reports 1,2,3,4
2. Results Analysis of the ADMADE Program, A Review
3. Analysis of Safari Hunting in Zambia
4. Comparative Study of Game Management Areas: Analysis of Performance Variables
5. Reaching out to Rural Communities: A review of CBNRM Training
6. Social and Economic Baseline Survey of Luangwa Valley
7. The ADMADE Foundation: Building Conservation Solutions for Zambia
8. ADMADE Investment Proposal
9. Annual Report for the ADMADE Sustainability Project
10. The Role of Democracy in Promoting Conservation and Rural Development (An ADMADE Lessons-learned Paper)
11. Alternative Approaches to Estimating Wildlife Population Trends: A Test of Community-based Management (An ADMADE Lessons-learned Paper)
12. Helping Communities Succeed in CBNRM: Roles and Functions of a Training Institute. (An ADMADE Lessons-learned Paper)
13. Improving Food Security to Reduce Illegal Hunting of Wildlife (An ADMADE Lessons-learned Paper)